

Notice of Allowability

Application No.

10/664,701

Examiner

Minh D. A

Applicant(s)

WITMER, WARNER H.

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/28/07.
2. ☒ The allowed claim(s) is/are 34-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/25/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

shih-chao chen
SHIH-CHAO CHEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2.

Authorization for this examiner's amendment was given in a telephone interview with Warner H. Witmer on 3/28/07 and 5/25/07.

The application has been amended as follows:

Page 1, line 1, added ---1-33 are cancelled---

Page 2, claim 37, line 1, deleted "claims 34 and 36" and inserted ---claim 34---

Page 2, claim 38, line 1, deleted "claims 34 and 36" and inserted ---claim 34---

Page 2, claim 39, line 1, deleted "claims 34 and 36" and inserted ---claim 34---

Page 3, claim 40, line 1, deleted "claims 34 and 36" and inserted ---claim 34---

Page 4, claim 46, line 1, deleted "claims 34, 35, and 36" and inserted ---claim 34-

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Page 4, claim 47, line 1, deleted "claims 34, 35, and 36" and inserted ---claim 34---

ABSTRACT

A flat display panel (MPDP) of the emissive plasma pixel element type for scanned television image reproduction is disclosed yielding bright, efficient and rugged displays for TV applications by use of MEMS and VLSI technology for fabrication. The invention takes a complete system approach towards designing a high efficiency

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television display of the mini type for portable applications. A main objective of the present invention is to overcome problems inherent in X-Y matrix scanning of the picture elements in a flat display screen. A simplified addressing method eliminates the need for conventional X-Y matrix addressing of 1200 conductors. By means of the invention a gaseous electric discharge causes a visible light pixel to move progressively and recurrently along a series of adjacent electrodes by application of voltage impulses so as to achieve interlaced scanning. Improved construction technology to achieve very small pixel elements is a feature of the inventive structure. This is particularly advantageous for HDTV applications where pixel sizes need to be small (20 urn) for a MPDP. Another major advantage of the construction is that sealed cavities allow more than one atmosphere gas pressure providing substantially improved light emission. This significantly improves the brightness of MPDP displays and enables improved projection displays as well a useful scanned high intensity micro-lamp rear lighting illumination for conventional LED flat screen display devices.

REMARKS

2. The changes above have been provided to improve the clarification of the claims and abstract.

Allowable Subject Matter

3. Claims 34-51 are allowed.

The following is an examiner's statement of reasons for allowance:

Prior art does not disclose that, a pulsed electronic circuit enabling means

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providing electrical activation of selected column electrode groups and selected row electrode groups providing synchronized electrical activation of frame initiation and luminous glow discharge scan transfer along a row triggered in timed relation to standard television broadcast signals, wherein the improvement is a method for eliminating orthogonal X-Y addressing as well as improved structure for the construction of a mini display panel of the plasma type in combination with all limitations recited in independent claim 34.

The remaining dependent claims 37-51 are allowable for at least above reason.

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. None of record prior arts stands alone or combination with the others discloses all limitations required in claim invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of relevant prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Prior art Schoenback et al (U.S. Patent No. 6,072,273) discloses discharge device having cathode with micro hollow array.

Prior art Lepselter (U.S. Patent No. 5,990,620) discloses a pressurized plasma display.

Prior art Lepselter (U.S. Patent No. 5,962,975) discloses flat-panel display having magnetic elements.

Prior art Lepselter (U.S. Patent No. 5,777,436) discloses gas discharge flat-panel display and method for making the same.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner

Minh A

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5/26/07

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PRIMARY EXAMINER